

Portable Shelter for Golfers

BACKGROUND

[0001] This application claims priority to U.S. Provisional Application No. 60/443,812, filed January 30, 2003.

[0002] The present invention relates to shelters and, more particularly, to a shelter that assembles easily, provides sufficient height and mobility, and collapses to a portable size.

[0003] Shelters are often used to provide protection and shelter from environmental elements, including sun and rain. They are typically used to provide temporary shelter for picnics, backyards, beach and sporting events, recreational activities, camping, and trade shows.

[0004] A shelter often has multiple vertical support members and an overhead canopy support frame. When assembled, a shelter is a free-standing, self-supporting structure that supports a canopy of fabric. The canopy can function as a barrier to environmental elements, such as sun and rain, and can also function as a surface for displaying information and graphical material. Shelters can often be provided with accessories, such as mosquito netting, rain gutters, wheels, and weight bags.

[0005] Shelters often have to be transported to the location of use. Conventional shelters are typically cumbersome. To address this problem, some shelters are designed to be disassembled. Shelter assembly and disassembly, however, can be time-consuming and may require tools or ropes. When disassembled, conventional shelters can be bulky and/or heavy, are not easily transported, and can take up too much storage space. Therefore, some shelters are designed to collapse to a portable size. Conventional shelters that collapse, however, are limited in height. This restricts the activities for which such shelters can be used. For example, such shelters are too short for golfers to use because they do not provide adequate height to swing a golf club. Although existing golf canopies provide sufficient height, they are large, heavy, and time-consuming to assemble and disassemble. Further, the size and weight of existing golf canopies prevents golf professionals from carrying a disassembled golf canopy to a golf lesson in the trunk of a car.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate a preferred embodiment of the invention and together with the description serve to explain principles of the invention.

[0007] Figure 1 is a perspective view of an embodiment of a portable shelter in the upright configuration according to the present invention.

[0008] Figure 2 is a perspective view of the portable shelter of Fig. 1 without the canopy.

[0009] Figure 3 is a perspective view of the portable shelter of Fig. 1 in the collapsed configuration.

DESCRIPTION

[0010] Reference will now be made in detail to a presently preferred embodiment of the invention, an example of which is illustrated in the accompanying drawings.

[0011] Figures 1 through 3 show a preferred embodiment of a shelter 10 according to the present invention. In this embodiment, the present invention provides portability, ease of set up, and adequate height and mobility for such activities as golf.

[0012] As shown in Fig. 1, in this embodiment, the shelter 10 includes multiple vertical support members 20, a truss structure 30, a canopy 40, and base supports 50. The base supports 50 can also be replaced with rolling members (not shown).

[0013] For conventional shelters, the clearance from the ground to the lowest truss is typically about 7 feet. The shelter 10 of the present invention includes multiple vertical support members 20 that are adjustable in height. The adjustability of the shelter enables the shelter 10 to vary in height, with the clearance from the ground to the lowest truss preferably 10'6". The 10'6" clearance enables a golfer to swing a golf club while standing underneath the shelter 10. This increased clearance thus permits the shelter 10 to be used for a variety of purposes, including a driving range canopy at a golf course. In other embodiments of the shelter 10, the clearance from the ground to the lowest truss (or the clearance from the ground to the lower edge of a canopy valence) may be greater than or less than 10'6" depending upon the application for which the shelter 10 is being used. For example, if the shelter 10 is

being used to provide cover while washing and waxing large vehicles, the clearance will depend on the height of the vehicle being washed. According to various embodiments of the invention, the height of the shelter 10 may vary from 7 feet to 12 feet at approximately 1 inch increments.

[0014] The vertical support members 20 and the truss structure 30 are preferably constructed of lightweight material and can be powder-coated, for example, to provide rust protection. The length and width of the shelter 10 can be adjusted by increasing or decreasing the number of vertical support members 20 and the size of the truss structure 30 and canopy 40. For example, the shelter 10 may have the following dimensions: 5' x 5', 8' x 8', 10' x 10', 10' x 15', 10' x 20', or 12' x 12'.

[0015] Each vertical support member 20 includes a base support 50 at one end. The base supports 50 can also be replaced with rolling members (not shown), such as conventional wheels or stem casters. Replacing the base supports 50 with rolling members provides mobility and permits the shelter 10 to be easily relocated from one position to another while in the upright configuration. The rolling members can also reduce the amount of time required for handling and set up because the shelter 10 can be repositioned without having to be collapsed and reassembled. One or more of the rolling members can also have a conventional locking brake mechanism for stationary use of the shelter 10.

[0016] The canopy 40 is preferably constructed of lightweight fabric. The canopy 40 can be treated to resist fire, rot, mildew, water, and ultraviolet rays. The canopy 40 can also be made in various colors and patterns and can also function as a display surface for information or graphical material. Additionally, the shelter 10 can be configured to accept additional accessories (not shown), for example, wind drapes, lights, heaters, and/or misters can be provided.

[0017] The truss structure 30 of the shelter 10 includes members that are hingedly connected to one another. This configuration enables a user to quickly and easily unfold the shelter 10 from a collapsed position to an upright position, which minimizes set up time and eliminates the need for tools and fasteners. The shelter 10 can also be biased toward the upright configuration to further aid the unfolding of the shelter 10. Additionally, the configuration of the truss structure 30 enables the truss

structure 30 to collapse from the upright configuration shown in Fig. 1 to the collapsed configuration shown in Fig. 3 without being disassembled from the vertical support members 20. In the collapsed configuration, the length of the collapsed shelter 10 is preferably four feet. This makes the collapsed shelter 10 readily portable and provides for ease of handling and storage. A cover 60 and/or carrying case (not shown) into which the collapsed shelter 10 can be inserted may also be provided.

[0018] Other embodiments of the invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. It is intended that the specification and examples be considered as exemplary only.